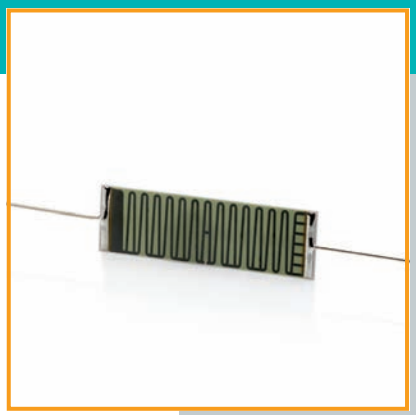
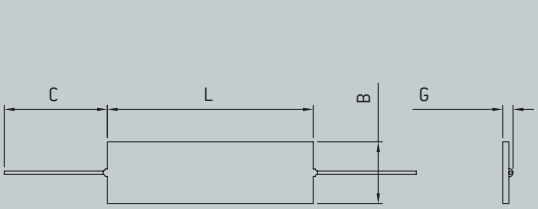
HIGH VOLTAGE RESISTORS HVR 967

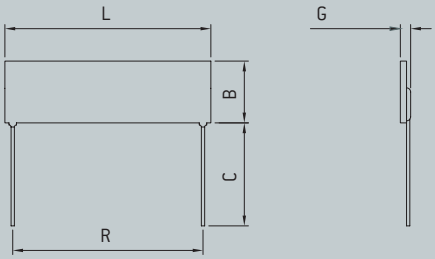
With their variety of designs, thick-film high voltage resistors offer ideal possibilities for measuring, controlling and regulating processes in high voltage applications. Whether for high voltage pulses or for registering constant high voltages – we offer the ideal solution for all applications in high voltage engineering, high voltage network components, in medical technology, in electrostatics, the automotive industry and traffic engineering.



Soldered axially

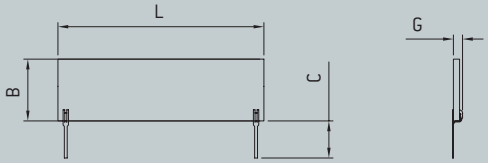


Soldered radially



- Flat shape
- Pulse-proof
- Low inductance
- New: available standard products

Contact pins on request



GENERAL TECHNICAL SPECIFICATIONS	
Resistance values, standard	1 k, 5 k, 10 k, 100 k, 1 M, 5 M, 10 M, 25 M, 50 M, 100 M, 1 G, 2 G, 5 G
Tolerance	1 % (0.5 % to 20 %)*
Temperature coefficient	100 ppm/°C (25 ppm/°C to 200 ppm/°C)*
Voltage coefficient	<2 ppm/V
Insulation resistance	>10,000 MΩ (500 V 25 °C 75 % relative humidity)
Dielectric strength	>1,000 V (25 °C 75 % relative humidity) ΔR/R 0.25 % max.
Thermal shock	ΔR/R 0.25 % max.
Overload capacity	1.5 x P[nom], 5s (do not exceed 1.5 x V[max])
Moisture resistance	ΔR/R 0.25 %
Long-term stability	ΔR/R 0.25 % max.
Temperature range (operation / storage)	-55 °C to +175 °C (-55 °C to +100 °C)
Encapsulation	Epoxy-based coating (glass, silicone-based encasing)
Lead material	Connection wires Ø 0.8, tinned Cu, axial or radial (optionally silvered Cu or PIN)

Depending on ambient conditions, the characteristics of resistors can change.
We recommend a suitability test under operational conditions.

* Other values upon request.

TYPE SELECTION

TYPES	TCR (ppm/°C)	0.50 %	1 %	2 %	5 %	10 %	20 %
967.3.25 **1 W** **8 kV (air)** **12 kV (oil)**	25 50 100 200	5 k - 2 G 5 k - 2 G 5 k - 2 G 5 k - 2 G	2 k - 2 G 2 k - 2 G 2 k - 2 G 2 k - 2 G	2 k - 2 G 2 k - 2 G 2 k - 2 G 2 k - 2 G	2 k - 2 G 2 k - 2 G 2 k - 2 G 2 k - 2 G	2 k - 2 G 2 k - 2 G 2 k - 2 G 2 k - 2 G	2 k - 2 G 2 k - 2 G 2 k - 2 G 2 k - 2 G
967.3.38 **1.5 W** **10 kV (air)** **15 kV (oil)**	25 50 100 200	4 k - 500 M 4 k - 500 M 4 k - 500 M 4 k - 500 M	4 k - 3 G 4 k - 3 G 4 k - 3 G 4 k - 3 G	4 k - 3 G 4 k - 3 G 4 k - 3 G 4 k - 3 G	4 k - 3 G 4 k - 3 G 4 k - 3 G 4 k - 3 G	4 k - 3 G 4 k - 3 G 4 k - 3 G 4 k - 3 G	4 k - 3 G 4 k - 3 G 4 k - 3 G 4 k - 3 G
967.5.13 **1.0 W** **5 kV (air** **7.5 kV (oil)**	25 50 100 200	3 k - 500 M 3 k - 500 M 3 k - 500 M 3 k - 500 M	2 k - 1 G 2 k - 1 G 2 k - 1 G 2 k - 1 G	2 k - 1 G 2 k - 1 G 2 k - 1 G 2 k - 1 G	2 k - 1 G 2 k - 1 G 2 k - 1 G 2 k - 1 G	2 k - 1 G 2 k - 1 G 2 k - 1 G 2 k - 1 G	2 k - 1 G 2 k - 1 G 2 k - 1 G 2 k - 1 G
967.7.51 **2 W** **20 kV (air)** **30 kV (oil)**	25 50 100 200	10 k - 400 M 10 k - 400 M 10 k - 400 M 10 k - 400 M	5 k - 5 G 5 k - 5 G 5 k - 5 G 5 k - 5 G	5 k - 5 G 5 k - 5 G 5 k - 5 G 5 k - 5 G	5 k - 5 G 5 k - 5 G 5 k - 5 G 5 k - 5 G	5 k - 5 G 5 k - 5 G 5 k - 5 G 5 k - 5 G	5 k - 5 G 5 k - 5 G 5 k - 5 G 5 k - 5 G
967.8.26 **2 W** **10 kV (air)** **15 kV (oil)**	25 50 100 200	10 k - 1 G 10 k - 1 G 10 k - 1 G 10 k - 1 G	5 k - 2 G 5 k - 2 G 5 k - 2 G 5 k - 2 G	5 k - 2 G 5 k - 2 G 5 k - 2 G 5 k - 2 G	5 k - 2 G 5 k - 2 G 5 k - 2 G 5 k - 2 G	5 k - 2 G 5 k - 2 G 5 k - 2 G 5 k - 2 G	5 k - 2 G 5 k - 2 G 5 k - 2 G 5 k - 2 G
967.13.38 **3 W** **15 kV (air)** **30 kV (oil)**	25 50 100 200	10 k - 1 G 10 k - 1 G 10 k - 1 G 10 k - 1 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G
967.15.30 **3 W** **15 kV (air)** **30 kV (oil)**	25 50 100 200	10 k - 1 G 10 k - 1 G 10 k - 1 G 10 k - 1 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G
967.15.51 **4.5 W** **30 kV (air)** **45 kV (oil)**	25 50 100 200	20 k - 1 G 20 k - 1 G 20 k - 1 G 20 k - 1 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G	10 k - 5 G 10 k - 5 G 10 k - 5 G 10 k - 5 G
967.15.76 **5.5 W** **35 kV (air)** **52 kV (oil)**	25 50 100 200	20 k - 5 G 20 k - 5 G 20 k - 5 G 20 k - 5 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G
967.25.90 **10 W** **45 kV (air)** **67 kV (oil)**	25 50 100 200	20 k - 5 G 20 k - 5 G 20 k - 5 G 20 k - 5 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G	20 k - 10 G 20 k - 10 G 20 k - 10 G 20 k - 10 G

Other resistance values and temperature coefficients upon request

DIMENSIONS

TYPES	B [width]	C	G	L [length]	R [raster spacing]	Unit
967.3.25	3.8 (0.2)	9 (0.35)	2.5 (0.1)	25.4 (1.0)	22.9 (0.9)	mm (inches)
967.3.38	3.8 (0.15)	9 (0.35)	2.5 (0.1)	38.0 (1.5)	35.7 (1.41)	mm (inches)
967.5.13	5.0 (0.2)	9 (0.35)	2.5 (0.1)	12.7 (0.5)	10.2 (0.4)	mm (inches)
967.7.51	7.0 (0.3)	36 (1.42)	2.5 (0.1)	51.9 (2.04)	48.0 (1.89)	mm (inches)
967.8.26	8.0 (0.31)	36 (1.42)	2.5 (0.1)	25.4 (1.0)	22.5 (0.89)	mm (inches)
967.13.38	13.0 (0.51)	36 (1.42)	2.5 (0.1)	38.5 (1.52)	36.0 (1.42)	mm (inches)
967.15.30	15.0 (0.59)	36 (1.42)	2.5 (0.1)	30.0 (1.18)	22.1 (0.87)	mm (inches)
967.15.51	15.0 (0.59)	36 (1.42)	2.5 (0.1)	50.8 (2.0)	48.3 (1.9)	mm (inches)
967.15.76	15.5 (0.61)	36 (1.42)	2.5 (0.1)	76.2 (3.0)	73.20 (2.88)	mm (inches)
967.25.90	25,4 (1,0)	36 (1,42)	2,5 (0,1)	88,9 (3,45)	85,6 (3,37)	mm (inches)

SAMPLE ORDER

HVR 967.3.38 Type	A Connec-tions	B Cover	100 M Resistance value	1 % Tolerance	TC25 Temperature coefficient
	A = axial*	G = glass	R = Ω	0.5 %	25 ppm/°C
	R = radial*	**B = operation in air***	k = kΩ	**1.0 %***	50 ppm/°C
	P = PIN	D = operation in oil	M = MΩ	2.0 %	**100 ppm/°C***
		E = epoxy	G = GΩ	5.0 %	200 ppm/°C
		U = encasing		10.0 %	
				20.0 %	

LOAD CURVE